

**Construction Specification for
Water Meter Remote Wire and
Conduit Installation**

Table of Contents

| | | |
|-------------------|--|----------|
| TS 7.50.01 | SCOPE | 2 |
| TS 7.50.01.01 | Workmanship..... | 2 |
| TS 7.50.01.02 | Handling and Storage | 2 |
| TS 7.50.02 | REFERENCES – Not Used | 2 |
| TS 7.50.03 | DEFINITIONS – Not Used..... | 2 |
| TS 7.50.04 | DESIGN AND SUBMISSION REQUIREMENTS – Not Used | 2 |
| TS 7.50.05 | MATERIALS – Not Used | 2 |
| TS 7.50.06 | EQUIPMENT – Not Used | 2 |
| TS 7.50.07 | CONSTRUCTION | 2 |
| TS 7.50.07.01 | Installation Procedure | 2 |
| TS 7.50.08 | QUALITY ASSURANCE – Not Used | 4 |
| TS 7.50.09 | MEASUREMENT FOR PAYMENT | 4 |
| TS 7.50.09.01 | Water Meter Remote Wire and Conduit Installation | 4 |
| TS 7.50.10 | BASIS OF PAYMENT..... | 4 |
| TS 7.50.10.01 | Water Meter Remote Wire and Conduit Installation – Item..... | 4 |

TS 7.50.01 SCOPE

This specification covers the work to be undertaken for water meter remote wire and conduit installation

Supply all labour, Equipment, Material, tools and transportation to complete the works as described in this document, as shown on the drawings, and as necessary by evidence.

TS 7.50.01.01 Workmanship

Skilled labour only shall be used for all work.

All work shall be performed according to instructions given by the Contract Administrator or his duly appointed representative using the most suitable equipment.

TS 7.50.01.02 Handling and Storage

Material shall be stored so as to prevent injury to persons and to prevent the delay of work by others.

All materials which can be damaged by exposure to the elements must be stored in a clean and dry enclosure.

TS 7.50.02 REFERENCES – Not Used

TS 7.50.03 DEFINITIONS – Not Used

TS 7.50.04 DESIGN AND SUBMISSION REQUIREMENTS – Not Used

TS 7.50.05 MATERIALS – Not Used

TS 7.50.06 EQUIPMENT – Not Used

TS 7.50.07 CONSTRUCTION

TS 7.50.07.01 Installation Procedure

- 1) All conduit and all associated bends and fittings shall have a minimum inside diameter of 16 mm and shall be metallic type conduit bends shall be L.B., L.L. or L.R. type.
- 2) The remote wire conduit shall be installed from a point, in the same room as the water meter, within 1.5 m of the meter, to a point within one metre of the hydro meter on the outside wall of the building at a distance between one metre and 1.2 m above finished grade.
- 3) If the hydro meter is not installed on the outside wall of the building, the conduit shall be installed to a point on the front wall of the building, or within 2 m of the front wall of the building if placed on the side wall of the building, at a distance between one metre and 1.2 m above finished grade.
- 4) The point on the outside wall of the building where the conduit terminates shall be accessible at all times.
- 5) Inside the building, the conduit shall be securely fastened at least every 1.5 m or fraction thereof.

-
- 6) Where the conduit terminates at the outside wall of the building, the conduit shall extend through the wall and terminate flush with the surface of the outside wall. If the remote readout device cannot be mounted over the termination point of the conduit at the wall then the conduit shall be extended to the remote readout device.
 - 7) Where the conduit terminates at the outside wall of the building, a clear space of a minimum of 400 mm x 400 mm shall be provided on the surface of the wall suitable for mounting the remote readout device or transmitter.
 - 8) The route the conduit takes from the water meter to the termination point on the outside wall shall always be the shortest, most direct route.
 - 9) Only the remote readout device wire shall be permitted to be installed inside the conduit.
 - 10) All wire installed on the exterior of any building or structure, including wire exiting any water meter chamber, shall be protected with an exterior grade metallic electrical conduit specifically designed for exterior use and approved by the City. Such conduit shall be securely fastened to the exterior wall or the receptacle mounting post at intervals no greater than half a metre or fraction thereof. The minimum number of fasteners shall be not less than two.
 - 11) The City shall supply the wire and the owner shall install the wire within the conduit leaving an excess of at least 1.5 m of wire at both ends. Both ends of the wire must be clearly tagged with the words "Water Meter". The wire must be a continuous single piece without splices or connections.
 - 12) If a water meter chamber is located within a driveway, parking lot or other area subject to vehicular traffic, a 25 mm diameter metallic conduit suitable for direct burial shall be installed from inside the meter chamber to a point no closer than 5 m to the area subject to vehicular traffic. The conduit shall be buried to a minimum depth of one metre below finished grade and shall emerge from the ground through or attached to the mounting post for the remote readout device.
 - 13) If there is insufficient room to provide the 5 m clearance from the edge of the area subject to vehicular traffic, the mounting post and plate shall be protected by a minimum of two bollards suitable to protect the post. More than two bollards shall be installed when required.
 - 14) The remote reading device mounting post shall be either 50 mm diameter galvanized pipe or 100 mm x 100 mm pressure treated timber placed in a poured concrete foundation a minimum of 1.2 m below finished grade.
 - 15) The mounting post and plate shall not be obstructed either temporarily or permanently.
 - 16) If there is no place to install a mounting post and the conduit and wire cannot be routed to the building wall, then a chamber cover type remote reading device shall be installed in accordance with the manufacturer's installation instructions.

TS 7.50.08 QUALITY ASSURANCE – Not Used

TS 7.50.09 MEASUREMENT FOR PAYMENT

TS 7.50.09.01 Water Meter Remote Wire and Conduit Installation

Measurement of the water meter remote wire and conduit installed shall be per unit installed.

TS 7.50.10 BASIS OF PAYMENT

TS 7.50.10.01 Water Meter Remote Wire and Conduit Installation – Item

Payment at the Contract Price for the above tender item shall be full compensation for all labour, Equipment and Material to do the work.